

REMARKS/ARGUMENTS

This Amendment and Response is in response to the Office Action having a mailing date of May 21, 2004. Claims 1-31 and 43-63 were examined. The Examiner stated that Claims 9, 14-17, 19, 21-24, 27, 28, 45, 46, 49, 50, 52, 58 and 60 are objected to as being dependent on a rejected base claim, but would be allowable if rewritten in independent format. The Examiner objected to Claims 12, 13, 18, 20, 25, 26, 29 and 30 under 35 U.S.C. § 112 on lack of antecedent basis grounds. The Examiner further stated that Claims 12, 13, 18, 20, 25 and 26 would be allowable if rewritten to overcome the rejections under 35 U.S.C. § 112. The Examiner also rejected Claims 1-6, 8, 11, 29-31, 51, 54-57 and 61-63 under 35 U.S.C. § 103(a) as unpatentable over Walsh U.S. Patent 4,716,483 in view of Chen et al. U.S. Patent 6,532,134; rejected Claims 7 and 53 under 35 U.S.C. § 103(a) as unpatentable over Walsh in view of Chen in further view of Bohrn U.S. Patent 4,775,586, rejected Claims 10 and 59 under 35 U.S.C. § 103(a) as unpatentable over Walsh in view of Chen in further view of Hsiao et al. U.S. Patent 6,416,935, and rejected Claims 43, 44, 47 and 48 under 35 U.S.C. § 103(a) as unpatentable over Walsh in view of Chen and further in view of Arya et al. U.S. Patent 5,969,906. Finally, the Examiner objected to the current title.

With respect to paragraph 1 of the present Office Action, the Examiner states that Applicants' traversal "is on the ground that all of the claims as filed would not require additional searching, not place any undue burden on the Patent Office." Applicants did not make this argument and are puzzled by the Examiner's reference to it. Nonetheless, as the Applicants and Examiner agree that Claims 1-31 and 43-63 comprise Group I, this issue would appear to be moot. Applicants agree to proceed with Claims 1-31 and 43-63.

Applicants have amended the title of the present application to now state "A Method for Reducing Corrosion of a Head Element During the Manufacture of a Disk Drive." Accordingly, the Examiner's objection to the title should be withdrawn.

With respect to the 35 U.S.C. § 112 rejection of Claims 12, 13, 18, 20, 25, 26, 29 and 30, Applicants have amended the claims to address the lack of antecedent basis. Accordingly, Applicants believe this rejection should be withdrawn.

With respect to the rejection of Claims 1-6, 8, 11 and 29-31, Applicants have amended independent Claim 1 to require the application of a non-permanent protective coating to the head element. The Examiner's rejection of these claims is based upon the combination of Walsh and Chen. Chen discloses use of a silicon coating deposited on the underside of a slider to prevent accumulation of debris on the bottom of the slider. According to Chen, debris is created when the slider contacts the disk surface during start/stop operations. The silicon coating disclosed by Chen is intended to remain in place during the life of the drive. It is not a temporary coating applied to the head to protect the head element against corrosion during rework. In fact, to establish the permanence of the silicon coating, Chen discloses that 20,000 start/stop tests were conducted without the silicon layer being rendered ineffective. (See, col. 5, lines 63-67.) In contrast, Claim 1 of the present application requires that the protective layer be a non-permanent protective layer. This difference distinguishes Chen and renders Claim 1 and its dependent claims allowable.

In addition, with respect to Claim 7, the silicon coating disclosed by Chen is not a fluorocarbon polymer. Silicons, as a category, are porous as compared to polymers. There is a difference in the protective nature of a coating formed from a fluorocarbon polymer as compared to a silicon. The selection of a fluorocarbon polymer is not an obvious design choice. There is no teaching in either Walsh, Chen or any of the other cited references that disclose use of a fluorocarbon polymer as claimed by Applicants. The Examiner's combination of Bohrn et al. with Walsh and Chen is unsupported and based in hindsight. The fact that Bohrn et al. disclose the use of a fluorocarbon polymer as a fire and heat retardant is an insufficient basis to make the suggested combination. The Examiner has failed to show that heat and fire are problems in disk drives. Absent a showing that these problems exist in disk drives, there is no basis to combine Bohrn et al

with Walsh and Chen to utilize the polymer of Bohrn et al. in a disk drive. Accordingly, Claim 7 is also allowable for this reason.

Claim 10 requires post-processing of the non-permanent protective coating to enhance its corrosion protection of the head element. Nothing in Chen or any of the other references cited by the Examiner discuss post-processing of the protective coating to enhance its corrosion protection. Chen simply applies a silicon polymer coating to be used as a permanent coating on the base of the slider. No teaching or suggestion is made of further processing of the coating to enhance its corrosion protection once applied to the slider. Accordingly, for this reason, Claim 10 is allowable.

With respect to Claims 43-46, Applicants have amended Claim 43 to include the limitation of Claim 45. Claim 45 contains allowable subject matter. As a result, Claims 43, 44 and 46 are in condition for allowance. Claim 45 is cancelled.

With respect to Claims 47-50, Applicants have amended Claim 47 to require that the protective coating be a fluorocarbon polymer protective coating. Thus, for the same reasons as stated above with respect to Claim 7, independent Claim 47 as amended is allowable over the art of record.

With respect to Claims 51-64, Applicants have amended Claim 51 to state that the protective coating applied to the head element is a temporary coating. None of the references of record disclose the use of a temporary coating for protecting the head element during manufacturing of a disk drive. Indeed, to the extent the references address a coating applied to the head element, it is a permanent coating. See Chen U.S. Patent 6,532,134, col. 5, lines 63-67; Hsiao et al. U.S. Patent 6,416,935, col. 2, lines 42-44.

Claim 53 is independently allowable for the same reasons as Claim 7. Use of a fluorocarbon polymer as claimed is not obvious in view of the use of the art of record.

Claim 59 is independently allowable for the same reason as Claim 10. None of the art of record teaches or suggests processing of a protective coating after it is applied to the head element to enhance its corrosion protection.

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Finally, new Claim 65 has been added. New Claim 65 is a combination of the elements recited in Claims 1 and 12. Claim 12 was identified by the Examiner as containing allowable subject matter if rewritten to contain all of the element of any preceding base claim. Accordingly, Claim 65 is in condition for allowance and should be allowed.

Based upon the foregoing, Applicants believe that all pending claims are in condition for allowance and such disposition is respectfully requested. In the event that a telephone conversation would further prosecution and/or expedite allowance, the Examiner is invited to contact the undersigned.

Respectfully submitted,

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